REMARKS

Applicants appreciate the thoroughness with which the Examiner has examined the above-identified application. Reconsideration is requested in view of the amendments above and the remarks below.

Applicants have amended the specification to provide the patent particulars requested by the Examiner.

Claims 1-5, 7-9 and 11-15 stand rejected under 35 USC § 102 as being anticipated by Sievert et al. U.S. Patent No. 6,687,729. Applicants respectfully traverse this rejection.

In response to the rejection, applicants are enclosing herewith a declaration under Rule 131, signed by both inventors, to establish facts showing conception and actual reduction to practice of this invention in this country prior to the December 20, 1999 filing date of Sievert et al. U.S. Patent No. 6,687,729 cited against this application, and due diligence from a time prior to that date until the instant application was filed and constructively reduced to practice on June 20, 2000.

The declaration submitted by the inventors establishes that each and every limitation of claim 1 of the above-referenced application is disclosed in the attached invention disclosure attached as Exhibit A, created and dated prior to December 20, 1999, but redacted to protect confidential information, and in the drawing attached as Exhibit B. A comparison of the limitations of claim 1 and the Disclosure is as follows:

The invention claimed in the subject application is directed to a method of parallel processing in a memory structure employing first and second threads, with the first thread

waiting for and processing work prepared for it by the second thread. The Exhibit A disclosure uses the term "first thread" in the same manner as used in the claims of the subject application, while the Exhibit B drawing refers to the first thread as "thread (in a bottle)", using the same "bottle" terminology for the first thread as used in column 12, lines 24-26 and Fig. 11 of the subject application. However, the Exhibit A disclosure and Exhibit B drawing use different terms for the "second thread" referenced in the claims; the Exhibit A disclosure uses the term "software" and the Exhibit B disclosure uses the term "escapement" for what is described in the claims as the "second thread," and which is also described in the subject application as the "launcher." See column 12, lines 52-56 and Fig. 11. Although the concept is the same, in preparing the subject application the inventors decided to use the term "launcher" instead of the term "escapement" since the former would be more widely understood.[1] Declaration, ¶5. Thus, the Exhibit B drawing shows the actions of the claimed first thread in the left side flow chart labeled "Create Thread (in a bottle)" and the actions of the claimed second thread in the center flow chart labeled "escapement (work, fcn)."

The following chart compares the steps of the claimed method in detail with the teachings in the original disclosure and drawing of Exhibits A and B:

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[1] The term "escapement" is defined as "a device in a timepiece which controls the motion of the train of wheelwork and through which the energy of the power source is delivered to the pendulum or balance by means of impulses that permit a tooth to escape from a pallet at regular intervals." Merriam-Webster OnLine Dictionary, www.m-w.com. Thus, an "escapement" is analogous to the "launcher" or "second thread" which controls the pace of the first thread by assigning it work.

CLAIM 1	ORIGINAL DISCLOSURE
A method of parallel processing in a memory structure comprising	"parallel programming" p.1, Ex. A; "new paradigm for the use of threads in a parallel environment" p.2, Ex. A.
creating a first thread in the memory structure which represents an independent flow of control managed by a program structure,	"Threads are data objects." p.2, Ex. A; "The invention implements an abstract data object which has a first thread waiting on it." p.2, Ex. A; "Create Thread (in a bottle)" Ex. B.
said first thread having two states, a first state processing work for the program structure and a second state undispatched awaiting work to process;	"When desired, the software [second thread] assigns particular work to the data object, which the waiting [first] thread then wakes up and does. After performing the work, the [first] thread again waits for more work." p.2, Ex. A;
providing a second thread in the memory structure which represents an independent flow of control managed by a program structure separate from the first thread;	"escapement (work, fcn)" Ex. B.
using the second thread to prepare work for the first thread to process;	"When desired, the software [second thread] assigns particular work to the data object, which the waiting thread then wakes up and does." p.2, Ex. A; In the second thread "escapement" flow chart, the steps "Inject data." Ex. B.
placing the work prepared by the second thread in a queue for processing by the first thread;	"When desired, the software [second thread] assigns particular work to the data object, which the waiting thread then wakes up and does." p.2, Ex. A; In the second thread "escapement" flow chart, the steps "Unlock bottle [first thread] Wait for escapement [second thread] release." Ex. B.

if the first thread is awaiting work to process when the work prepared by the second thread is placed in the queue, dispatching the first thread and using it to process the work in the queue;	"When desired, the software [second thread] assigns particular work to the data object, which the waiting thread then wakes up and does." p.2, Ex. A; In the first thread "Thread (in a bottle)" flow chart, the steps "Lock 'waiting for results' Load data Release escapement [second thread] Work on data Unlock 'waiting for results'." Ex B.
if the first thread is processing other work when the work prepared by the second thread is placed in the queue, using the first thread to complete processing of the other work, access the work in the queue, and then process the work in the queue; and	"After performing the work, the [first] thread again waits for more work." p.2, Ex. A; "Threads are created once and reused as needed." p.2, Ex. A; In the first thread "Thread (in a bottle)" flow chart, the steps "Lock 'waiting for results' Load data Release escapement [second thread] Work on data Unlock 'waiting for results'." Ex B.
using the program structure to destroy the first thread in the memory structure after the first thread completes a desired amount of work.	"Threads are created once and reused as needed." p.2, Ex. A; "The [first] thread is not destroyed until the application program decides to do so." p.2, Ex. A.

As stated in paragraph 8 of the inventors' declaration, they also reduced to practice the invention described in the disclosure and drawing of Exhibits A and B, respectively, in the United States prior to December 20, 1999. This reduction to practice was a "working implementation" for a "compiler product" as noted on page 3 of Exhibit A. The reduction to practice implemented all of the steps and limitations described in claim 1 of the subject patent application.

In addition to the reduction to practice, due diligence from a time before the date of the Sievert reference, December 20, 1999, until the constructive reduction to practice of

the invention, its June 20, 2000 filing date, is established by the inventors' declaration. The activities establishing such diligence are stated in these declarations were follows:

1. The disclosure and drawing of Exhibits A and B, respectively, were submitted to IBM's patent attorneys prior to December 20, 1999.

2. The inventors received a copy of letter dated January 20, 2000 from Jay Anderson, the IBM patent attorney responsible for the subject patent application, that the patent application for the invention described in the Disclosure was assigned IBM Docket No. FIS9-1999-0319, and would be prepared by the undersigned outside counsel, Peter Peterson of DeLio & Peterson LLC, New Haven, Connecticut. The inventors were also informed in that same letter that Mr. Anderson had assigned to Mr. Peterson the task of preparing applications for two other inventions made by them, IBM Docket Nos. FIS9-1999-0317 and FIS9-1999-0318.

3. Between January 20 and March 23, 2000, the inventors had at least one telephone conference with Mr. Peterson regarding the instant invention. On March 23, 2000, Mr. Beatty faxed further details of the instant invention to Mr. Peterson.

4. During the week of April 24, 2000, the inventors met with Mr. Peterson at their offices to discuss the instant invention and their other two previously mentioned inventions. It was decided with Mr. Peterson that, in view of the interrelated subject matter, a single patent specification and set of drawings

would be prepared that combined the instant invention and their other two inventions.

5. On May 5, 2000, the inventors received from Mr. Peterson a draft application that combined the instant invention and their other two inventions in a single specification and set of drawings, and included a separate set of claims for each of the three inventions.

6. Between May 5, 2000 and June 6, 2000, the inventors had further discussions with Mr. Peterson to review the instant application and suggest changes.

7. On June 6, 2000, Mr. Peterson sent the completed patent application on the instant invention to Mr. Anderson for execution by the inventors and filing with the U.S. Patent and Trademark Office ("PTO"). On or about that same date, Mr. Peterson sent the completed patent application on their other two inventions to Mr. Anderson for execution by the inventors and filing with the PTO.

8. On June 20, 2000, the inventors executed the declaration for the instant application. On that same day, IBM filed with the PTO the instant application, serial no. 09/597,524, as well as the applications for their other two applications, serial nos. 09/597,523 and 09/597,525. Their other two applications have since been issued as U.S. Patent Nos. 6,832,378 and 6,507,903, respectively. Copies of these patents are enclosed.

The entire period of time in issue, from December 20, 1999 to June 20, 2000 constituted six (6) months. The continuous activity during this time by the inventors and

the attorneys working on the instant patent application and the two closely related patent applications, all of which involved complex subject matter, clearly constitutes "due diligence" from a time just prior to the Sievert reference date to the constructive reduction to practice of the invention at the time of filing with the USPTO. 37 CFR § 1.131.

Since the only reference cited against the instant application, the Sievert patent, has been antedated by the enclosed declarations and supporting evidence under 37 CFR § 1.131 showing prior conception and reduction to practice, as well as due diligence, it is respectfully submitted that the application has now been brought into a condition where allowance of the entire case is proper. Reconsideration and issuance of a notice of allowance are respectfully solicited.

Respectfully submitted,

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CERTIFICATE OF MAILING

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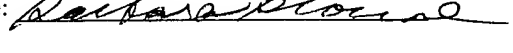
Name: Barbara Browne Date: May 11, 2005 Signature: 

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